



***Ducted Systems
Technical Services
Service Letter***

Letter: **YS-002-2021**

Date: February 24, 2021

To: Ducted Systems (Factory Direct) S1 HVAC Branch Service, Sales, Warranty Managers
Ducted Systems (UPG/Applied) Distribution Service, Sales, Warranty Managers

Subject: **Blocked suction process tube / Suction access port on Heat Pumps**

Product: THE, YEE, TE4B, REP14L, YHE, TH4B, RHP14L, YHG, CH6B, TH6B, RHP16L, YZT, HC19B, and HL19B

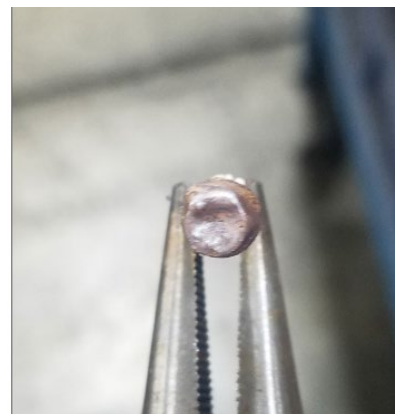
Effective: **February 24, 2021**

Expires: **February 24, 2024**

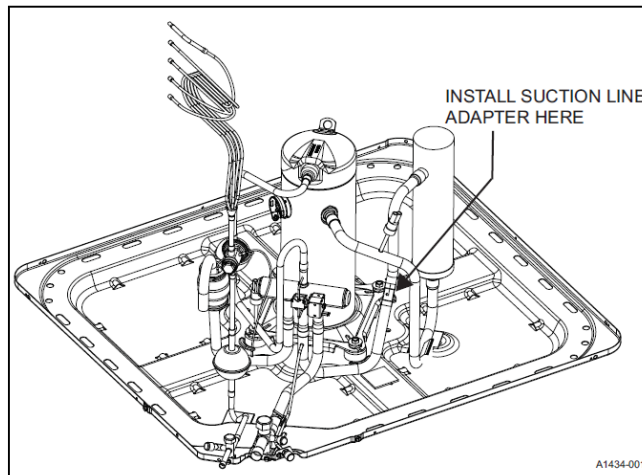
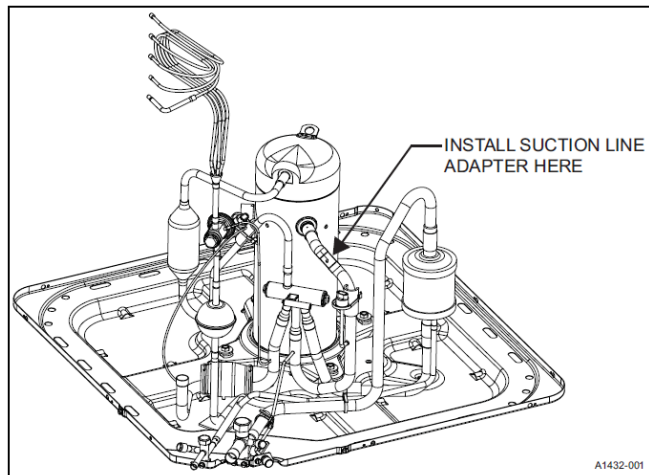
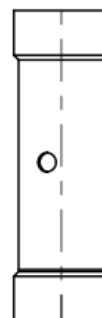
Summary: **This letter provides explanation and resolution for heat pump models which contain a blocked suction process tube.**

Starting in November 2019 the suction process tube used to access the suction side of the refrigerant circuit during heating operation of the above-mentioned heat pump models was changed from a 1/4" tube to a 3/16" tube. We started receiving reports of field installed heat pumps that contained refrigerant charge and were operating properly, however, there was no pressure indicated at the suction process tube access port. This access port is necessary for unit charging, commissioning, and servicing any time the heat pump is operating in heating mode.

Our internal investigation revealed that the suction process tube was being brazed shut during unit build. It was determined the cause of the error was an improperly created hole in the suction line tubing where the process tube is inserted prior to brazing. Specifically, the hole appears to be pressed instead of drilled which created a "pool" as shown in the image below. During process tube brazing, on some units, the process tube would fill with brazing alloy completely sealing it off from the refrigeration circuit. On units brought back to the factory for investigation when we removed the suction process tube the suction line itself remained sealed with a "slug" of brazing alloy. See images below of sealed suction line and slug of brazing alloy removed from the suction line.




Since the currently installed suction process tube cannot be safely removed and re-inserted at the same location due to the excessive amount of brazing alloy, we have developed a kit that contains 3 different sizes of a pre-drilled copper couplings as shown to the right, replacement suction process tube, bi-flow liquid line filter drier, cable ties, and installation instructions. The field repair kit is part number S1-37347211001. The blocked suction process tube will remain installed in the unit but rolled back behind the unit block off panel and secured with a cable tie. The copper coupling and replacement suction process tube will be installed in a different location between the reversing valve and compressor. Specific locations are called out in the kit installation instructions and a few examples of the copper coupling locations are shown below.



Depending on when the unit was installed and if any service work or refrigerant adjustments have been made, it may be several years before a unit with a blocked suction process tube is discovered. Due to this fact, we will keep this service letter open for a minimum of 3 years. This letter is to be used as a **fix-on-(discovery of) failure** basis. This service letter will cover Suction Process Tube Rework Kit S1-37347211001, unit refrigerant charge, and 4 hours labor toward equipment repair. The warranty claim filed for repair must include the invoice from the servicing dealer.

Some distributor partners performed a check of their inventory by manually depressing the Schrader core located on the suction process tube to check for pressure. Any new, unopened finished goods inventory found to have no pressure at the suction process tube port that was placed on hold at the distributor level needs to be returned for factory re-work. Contact your equipment regional account manager (RAM) and arrange an equipment return authorization using reason "Blocked Suction Process Tube." Any piece of the above mentioned equipment models shipped from Wichita on 09/10/2020 and after is not affected by this issue.

If you have any questions on this feel free to call Ducted Systems Residential Distributor Technical Services at 1-877-874-7378 and speak with a technical support representative or email us at be-ams-be-ductedsystemsresidentialdistributorsupport@jci.com



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